Land Capability Classification

The land capability classification system is used to show, in a general way, the suitability of soils for cropland. It is a three-category interpretative system. The two highest categories, class and subclass, give broad perspective of the suitability of map units for certain crops or pasture. These categories indicate the degree and kinds of limitations for these uses. The system evaluates soils for mechanized farming systems that produce the more common cultivated field crops, such as corn, small grains, cotton, hay, and field grown vegetables.

Capability Class

The highest category of the system is the capability class. The capability classes are groups of soils that have the same general suitability for the broad kinds of use common on farms and ranches. There are eight classes designated by Roman numerals I through VIII.

Classes I, II, III, and IV are suitable for mechanized production of common field crops if properly managed, and for production of pasture and woodland. The degree of limitation for production of cultivated crops increases progressively for class I to class IV. Limitations may affect production as well as the risk of permanent soil deterioration, as by erosion.

Classes V, VI, and VII are generally not suited to mechanized production of common field crops without special management, but are suitable for permanent cover such as grasses and trees. The severity of the soil limitations for crops increases from class V to class VII. Areas in class VIII are generally not suitable for crops, pasture, or wood products without management that is impractical. Class VIII areas may have potential for other uses, such as recreation or wildlife habitat.

Capability Subclass

The subclass identifies the dominant kind of limitation in the class. They are designated by adding a small letter, e, w, s, or c, to the class numeral, for example, IIe. The letter e shows that the main limitation is risk of erosion unless a close-growing plant cover is maintained: w shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); s shows that the soil is limited mainly because it is shallow, droughty, or stony; and c, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

There are no subclasses in class I because the soils of this class have few limitations. The soils in class V are subject to little or no erosion, but they have other limitations that restrict their use mainly to pasture, woodland, wildlife habitat, or recreation. Class V contains only the subclasses indicated by w, s, or c.

Capability Unit

The lowest category of the capability system is the capability unit. Capability units are soil groups within a subclass. The soils in a capability unit are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity. Units are designated by Arabic numerals, for example IIe-2. This category is not used in all soil surveys.

Crop Yield Estimates

The average yields per acre that can be expected of the principal crops under a high level of management are presented in the following table. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations are also considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, or green manure crops; and harvesting that insures the smallest possible loss.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change. Absence of a yield indicates that the soil is not suited to the crop or the crop is generally not grown on the soil.

Land Capability and Yields per Acre of Crops

Androscoggin And Sagadahoc Counties, Maine

Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil.

Map Symbol and Soil Name	Land Capability	Apples	Corn Silage	Irish Potatoes
		Bu	Tons	Cwt
AaB: Adams	3s		12.00	
AaC: Adams	4e			
AaD: Adams	6e			
AbD: Adams	6s			
AdA: Agawam	1		20.00	600.00
AdB: Agawam	2e		20.00	600.00
AdC: Agawam	3e		20.00	
AdD: Agawam	4e			
B.P.: Borrow Pits	8s			
BgB: Belgrade	2e		24.00	400.00
BgC: Belgrade	3e		22.00	400.00
Bo: Biddeford	5w			
BuB2: Buxton	3w		20.00	
BuC2: Buxton	4e		20.00	
CfB: Charlton	2e	1000.00	24.00	550.00
CfC2: Charlton	3e	1000.00	22.00	450.00
CfD2: Charlton	4e		15.00	

Map Symbol and Soil Name	Land Capability	Apples	Corn Silage	Irish Potatoes
		Bu	Tons	Cwt
ChB: Charlton	6s			
ChC: Charlton	6s			
ChD: Charlton	6s			
Ck: Coastal Beach	8w			
Du: Dune Land	8e			
EmB: Elmwood	2w		20.00	400.00
EmC2: Elmwood	3e		15.00	350.00
G.P.: Sand And Gravel Pits	8s			
Ha: Hadley	1		30.00	660.00
HfB: Hartland	2e	500.00	30.00	600.00
HfC2: Hartland	4e	500.00	25.00	550.00
HfD2: Hartland	6e			
HkB: Hinckley	3s			
HkC: Hinckley	4e			
HkD: Hinckley	6e			
HrB: Hollis	3e	450.00	16.00	
HrC: Hollis	4e	450.00	14.00	
HrD: Hollis	7e			

Map Symbol and Soil Name	Land Capability	Apples	Corn Silage	Irish Potatoes
HoD.		Bu	Tons	Cwt
HsB: Hollis	6s			
HsC: Hollis	6s			
HsD: Hollis	7s			
Lc: Leicester	4w			
Le: Leicester	7s			
Lk: Limerick	4w			
Md: Made Land				
MeB: Melrose	2e		30.00	500.00
MeC: Melrose	3e		25.00	450.00
Mf: Made Land	8s			
MkB: Merrimac	2s		18.00	400.00
MkC2: Merrimac	3e			400.00
MkD2: Merrimac	4e			
NgB: Ninigret	2w		20.00	550.00
On: Ondawa	1		30.00	600.00
Pa: Peat	8w			
Muck	8w			
PbB: Paxton	2e	1000.00	20.00	500.00
PbC:				

M and	ap Symbol d Soil Name	Land Capability	Apples	Corn Silage	Irish Potatoes
			Bu	Tons	Cwt
PbC: Paxton		3e	1000.00	18.00	500.00
PbD: Paxton		4e	450.00	16.00	
PfB: Paxton		6s			
PfC: Paxton		6s	900.00		
PfD: Paxton		6s			
Py: Podunk		2w		25.00	500.00
QU.: Quarries		8s			
RhC: Rock Land	I	8s			
Hollis		7s			
RhD: Rock Land	I	8s			
Hollis		7s			
S.L.: Stripped L	and				
Sa: Saco		6w			
ScA: Scantic		4w			
So: Scarboro		5w			
SuC2: Suffield		4e		20.00	
SuD2: Suffield		6e			
SxB: Sutton		2e	500.00	18.00	500.00
SxC:					

	Map Symbol and Soil Name	Land Capability	Apples	Corn Silage	Irish Potatoes
			Bu	Tons	Cwt
SxC: Sutton		3e	500.00	18.00	400.00
SyB: Sutton		6s	500.00		
SyC: Sutton		6s	500.00		
SzA: Swanto	n	4w		18.00	
Tn: Tidal M	arsh	8w			
Wa: Walpole	e	4w			
Wg: Whately	у	5w			
Wh: Whitma	an	5w			
Wn: Winoos	ski	2w		25.00	500.00
WrB: Woodb	ridge	2e	500.00	22.00	400.00
WsB: Woodb	ridge	6s	500.00		